

Listing of the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

1. (Currently amended) An isolated nucleic acid molecule encoding a differentially expressed prostate cancer antigen 3 (PCA3) mRNA containing an additional sequence between exon 3 and exon 4a thereof, thereby encoding a PCA3 mRNA; having a sequence which is longer than that set forth in SEQ ID NO:2, wherein said longer isolated nucleic acid is indicative of a non-malignant state of the prostate.

2. (Currently amended) The isolated nucleic acid molecule of claim 1, wherein said additional sequence interrupts ~~the~~ a predicted open reading frame of a PCA3 protein, thereby yielding a truncated PCA3 protein.

3. (Currently amended) The isolated nucleic acid molecule according to claim 1, wherein said additional sequence between exon 3 and exon 4a comprises a polynucleotide sequence at least 90% identical to a sequence selected from the group consisting of:

(a) a nucleotide sequence as set forth from nucleotides 27 to 254 of SEQ ID NO:1;

(b) a nucleotide sequence fully complementary to the nucleotide sequence in (a); and

(c) a nucleotide sequence which hybridizes under high stringency condition to any of the nucleotide sequences in (a) or (b), said high stringency conditions comprising a hybridization at 68°C, in 5x SSC, 5x Denhardt's solution, 1% SDS, and 100 µg/ml denatured salmon sperm DNA.

4. (Original) The isolated nucleic acid molecule according to claim 1, wherein the molecule comprises the nucleotide sequence encoding PCA3 as set forth in SEQ ID NO:1.

5. (Currently amended) The isolated nucleic acid molecule according to claim 1, wherein the molecule contains a predicted open reading frame which encodes the amino acid sequence set forth in SEQ ID NO:3.

6. (Previously presented) An isolated nucleic acid molecule consisting of 10 to 50 nucleotides which specifically hybridizes to a differentially expressed PCA3 mRNA comprising an additional PCA3 sequence between exon 3 and exon 4a, thereby giving rise to a PCA3 mRNA having a sequence which is longer than that set forth in SEQ ID NO:2, wherein said nucleic acid molecule is or is complementary to a nucleotide sequence consisting of at least 10 consecutive nucleotides from said additional PCA3 sequence, as set forth from nucleotides 27 to 254 of SEQ ID NO:1.

Claims 7-8 (Canceled)

9. (Original) A kit for detecting the presence of differentially expressed PCA3 mRNA in a sample comprising at least one container means having disposed therein the nucleic acid molecule according to claim 6.

10. (Original) A recombinant nucleic acid molecule comprising, 5' to 3', a promoter effective to initiate transcription in a host cell and the nucleic acid molecule according to claim 1.

11. (Original) A cell that contains the recombinant nucleic acid molecule according to claim 10.

12. (Original) A non-human organism that contains the recombinant nucleic acid molecule according to claim 10.

Claims 13-23 (Canceled)

24. (Previously presented) The isolated nucleic acid of claim 1, wherein said longer PCA3 mRNA comprises the nucleic acid sequence set forth from nucleotides 27 to 254 of SEQ ID NO:1.

25. (Currently amended) The isolated nucleic acid molecule of claim 24, wherein said additional sequence interrupts ~~the~~ a predicted open reading frame of a PCA3 protein, thereby yielding a truncated PCA3 protein.

26. (Currently amended) The isolated nucleic acid molecule of claim 6, wherein said molecule sequence ~~is as~~ has the sequence set forth in SEQ ID NO:4.

27. (Currently amended) An isolated nucleic acid molecule consisting of a nucleic acid sequence ~~having the nucleic acid sequence~~ selected from the group consisting of:

(a) the nucleic acid sequence as set forth from nucleotides 27 to 254 of SEQ ID NO:1;

(b) a nucleotide sequence fully complementary to the nucleotide sequence in (a); and

(c) a nucleotide sequence which hybridizes under high stringency condition to any of the nucleotide sequences in (a) or (b), said high stringency conditions comprising a hybridization at 68°C, in 5x SSC, 5x Denhardt's solution, 1% SDS, and 100 µg/ml denatured salmon sperm DNA.

28. (Previously presented) A recombinant nucleic acid molecule comprising, 5' to 3', a promoter effective to initiate transcription in a host cell of the nucleic acid molecule according to claim 27.

29. (Previously presented) A cell that contains the recombinant nucleic acid molecule according to claim 28.

30. (Previously presented) A non-human organism that contains the recombinant nucleic acid molecule according to claim 28.

31. (Currently amended) An isolated nucleic acid molecule having the nucleic acid sequence selected from the group consisting of:

a) the nucleic acid sequence as set forth from nucleotides 27 to 254 of SEQ ID NO:1; and

b) a nucleotide sequence fully complementary to the nucleotide sequence in a),

wherein said nucleic acid molecule is indicative of a non-malignant state of the prostate.

32. (Previously presented) A recombinant nucleic acid molecule comprising, 5' to 3', a promoter effective to initiate transcription in a host cell and the nucleic acid molecule according to claim 31.

33. (Previously presented) A cell that contains the recombinant nucleic acid molecule according to claim 32.

34. (Previously presented) A non-human organism that contains the recombinant nucleic acid molecule according to claim 32.